

## Replacement Sheet

### ABSTRACT

A frequency dividing section is made up of a frequency divider for dividing output of a local oscillator, a frequency divider for dividing output of an in-phase local oscillation signal of the frequency divider, and a dummy circuit connected to the output terminal of a quadrature local oscillation signal of the frequency divider. At the first frequency band operation time, output of the frequency divider is used for modulation and demodulation and at the second frequency band operation time, output of the frequency divider is used for modulation and demodulation. Although the frequency divider is shared between the first and second frequency bands, the dummy circuit is made the same circuit as an input amplifier of the frequency divider at the first frequency band operation time, so that the phase difference between the in-phase local oscillation signal and the quadrature local oscillation signal output by the frequency divider can be kept. Accordingly, the frequency dividers are shared and combined for lessening the circuit scale.